


BROADBAND EXPANSION GRANT APPLICATION

For Fiscal Year 2022

Primary Applicant (Name and Address): CCI Systems, Inc. DBA Astrea 105 Kent St. Iron Mountain, MI 49801	Applications MUST be UPLOADED to ERF via the Commission's website, http://psc.wi.gov/apps35/ERF_upload/content/mymenu.aspx . Refer to section 2.3 for detailed instructions. Applications are due and MUST be uploaded to ERF no later than: March 17, 2022 at 4:00pm (16:00) Central Time. Late applications will not be accepted.		
	Contact for further information: PSCStatebroadbandoffice@wisconsin.gov		
	Date: March 17 th , 2022		
<p>The Public Service Commission of Wisconsin is seeking applications for Broadband Expansion Grants. The Commission may award one or more grants during Fiscal Year 2022 to public and private entities that meet the eligibility requirements set forth in Wis. Stat. § 196.504. This grant round will be funded with bond proceeds authorized by the Wisconsin Building Commission pursuant to Wis. Stat. § 13.48(30). As such, successful applicants are subject to the requirements of Wis. Stat. § 13.48(30). Successful applicants will demonstrate a clear and achievable plan to improve broadband communications services in one or more underserved areas in the State.</p>			
<p>Applicant Certification: In signing this application, the undersigned verifies under penalty of perjury that the Applicant and its employees and agents have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition with respect to this application; that no attempt has been made to induce any other person or firm to submit or not to submit an application; that this application has been independently arrived at without collusion with any other proposer, competitor or potential competitor; that this application has not been knowingly disclosed prior to the opening of applications to any other applicant or competitor; that all of the responses and representations of Applicant in this application are true and correct to the best of the undersigned's knowledge, information, and belief; and that Applicant agrees to, accepts, and will comply with all of the terms and conditions respecting this application and any award of a broadband expansion grant as may be established in a grant award Agreement.</p>			
Name of Authorized Representative (Type or Print) R. Cory Heigl	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> Title Vice President </td> <td style="width: 50%; padding: 5px;"> Phone () 906-776-2634 </td> </tr> </table>	Title Vice President	Phone () 906-776-2634
Title Vice President	Phone () 906-776-2634		
Signature of Authorized Representative 	Date 3/17/2022		

SUMMARY OF GRANT APPLICATION

Primary Applicant Name CCI Systems, Inc. DBA Astrea	Amount of Broadband Grant Request (round to nearest dollar) \$124,541
Federal Employer Identification No. 38-2356585	Amount of Matching Funds Pledged (round to nearest dollar) \$83,027
Contact Name and Title Cory Heigl – Vice President	Total Cost of Proposed Project (round to nearest dollar) \$207,568
Telephone Number 906-776-2634	Project Name Town of Three Lakes – County HWY X
E-mail Address(es) cory.heigl@astreaconnect.com	Type of Proposed Broadband Service (FTTH, Cable, DSL, etc.) FTTH
Grant Manager, if different than Primary Applicant N/A	Type of Proposed Project (Last-mile, Middle-Mile, backbone, other) N/A
Grant Manager Contact Name N/A	Grant Manager Email Address and Telephone Number N/A
If the application proposes a public-private partnership, list the names, addresses, and FEINs of the partner companies or organizations Town of Three Lakes – Oneida County Jeffery Bruss – Chair 6965 W. School St., Three Lakes, WI 54562	
Brief Project Description (2 sentences) Construct 3.2 miles of Fiber infrastructure to provide (FTTH) to provide gigabit services to 84 new addresses.	
Maximum Proposed Download Transmission Speed 1000 Mbps	Maximum Proposed Upload Transmission Speed 1000 Mbps
Minimum Proposed Download Speed to Customer Location 50 Mbps	Minimum Proposed Upload Transmission Speed to Customer Location 50 Mbps
County or Counties served by this project Oneida County	Community or Communities served by this project Town Of Three Lakes

List of the broadband service providers, if any, currently serving the area the applicant proposes to serve	
Frontier	
Does proposed project serve an <u>unserved</u> area of the State, as defined in Section 1.4 of the application instruction? (yes/no)	Is the Applicant certified as a Broadband Forward! Community or Telecommuter Forward! Community, or does the grant project propose to serve a Broadband Forward! Community or Telecommuter Forward! Community? (yes/no)
YES	YES
For last mile projects or component the expected number of Business Locations that will have access to the improved broadband service (i.e., total business locations passed or with new service access). No Traditional "Brick and Mortar" Businesses	For last mile projects or components the expected number of Residential Locations that will have access to the improved broadband service (i.e., total residential locations passed or with new service access). 84
Of the improved business locations, how many locations are <i>unserved</i> ? No Traditional "Brick and Mortar" Businesses	Of the improved residential locations, how many are <i>unserved</i> ? 84
For providers that are eligible telecommunications carriers will the proposed broadband service be available to Lifeline customers? (yes/no) N/A	Are there any programs available for low-income households to access low-cost service or discounts? (yes/no) YES
Is the internet service provider currently participating in the Emergency Broadband Benefit Program? (yes/no) YES	Is the internet service provider currently participating in the Department of Public Instruction and CESA purchasing's Digital Learning Bridge? (yes/no) YES
Did the internet service provider participate in the Public Service Commission's voluntary Broadband Coverage Data Collection in 2021? (yes/no) YES	

FY22 Broadband Expansion Grant Application

Budget & Income Summary



Please complete this form using Microsoft Excel. A PDF copy must be attached to your application as page four. In addition, this form must also be uploaded to ERF in Excel format.

Grant Summary

Grant Applicant:	Project:
CCI Sysrtems, Inc. d/b/a Astrea Connect	Town of Three Lakes - County X

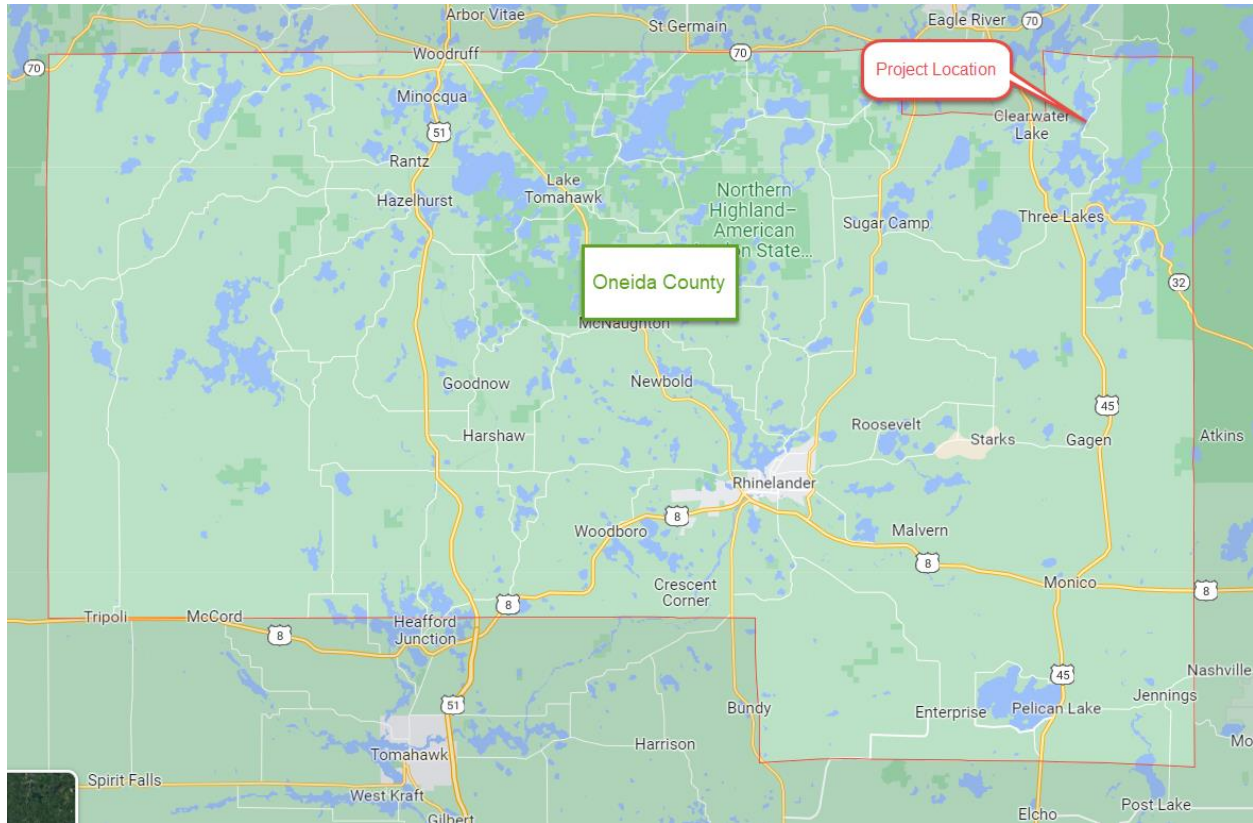
Budget

Line:	Description / Category:	Grant Funds:	Match:	Total:
1	Contractual, Consultant Fees	\$ 86,279.00	\$ 57,519.00	\$ 143,798.00
2	Equipment	\$ 31,662.00	\$ 21,108.00	\$ 52,770.00
3	Supplies			\$ -
4	Labor (Salary, Fringe)	\$ 6,600.00	\$ 4,400.00	\$ 11,000.00
5	Permitting, Licensing Fees			\$ -
6	Travel			\$ -
7	Other			\$ -
Total:		\$ 124,541.00	\$ 83,027.00	\$ 207,568.00
		40.0% match requested		

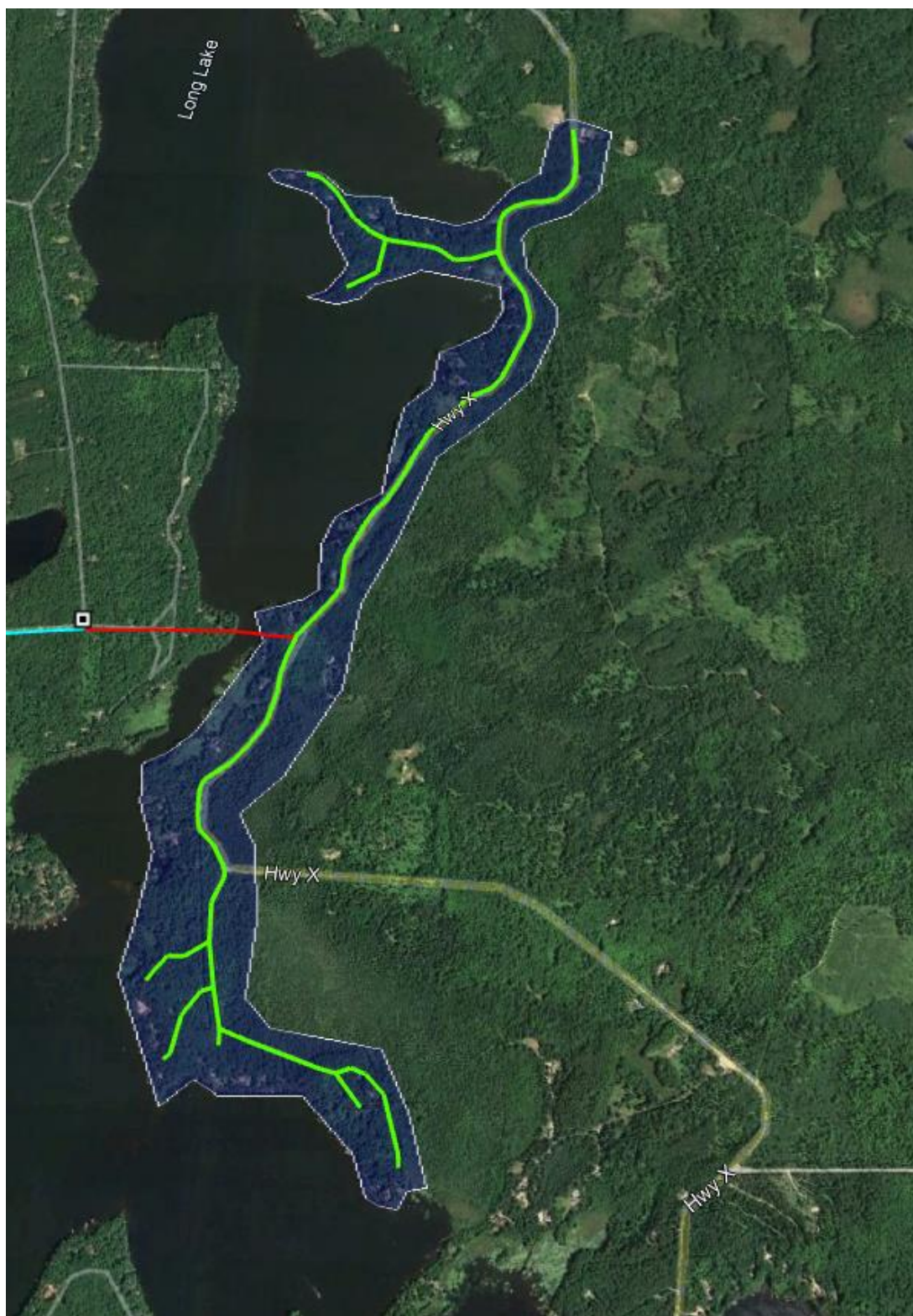
Pledged Contributions

#:	Entity:	Entity Type:	Pledge Type:	Pledge:
1	CCI Systems, Inc	Applicant	Cash	\$ 83,027.00
2				
3				
4				
5				
6				
7				
8				
9				
10				
Total:				\$ 83,027.00

Oneida County Map



Project Map





Wisconsin PSC Broadband Expansion Grant Program Application

Submission: March 17th, 2022

3.2 Mandatory Application Requirements

3.2.1 Applicant identification and contact information

3.2.1.a. The name of the entity applying for the grant, and the mailing address, telephone number and email address of one or more contact persons representing the entity.

Contact Name/Title: Cory Heigl, Vice President
Organization: CCI Systems, d.b.a. Astrea Connect
Identity: Private (Telecommunications Company)
Mailing Address: 105 Kent St., Iron Mountain, MI 49801
Telephone: (906) 282-3682 – Mobile; (906) 776-2634 - Office
Email: cory.heigl@astreaconnect.com

3.2.1.b. If the application proposes a public-private partnership, include the identity and contact information for all application partners.

Contact Name/Title: Jeffrey Bruss
Organization: Town of Three Lakes
Identity: Town Chair
Mailing Address: 6965 W. School St., Three Lakes, WI 54562
Telephone: (715) 546-3316
Email: chairmanbruss@townofthreelakes.com

3.2.1.c. The application must show that the applicant is an organization, a telecommunications utility, or a city, village, town, or county that has established a legal partnership or joint venture arrangement with an otherwise qualified organization or telecommunications utility, and as such meets the eligibility requirements set forth in Wis. Stat. s. 196.504(1).

CCI Systems (CCI), d.b.a. Astrea Connect, is an “eligible applicant” as defined in Wis. Stat. s. 196.504(1) because it is a for-profit telecommunications utility.

3.2.2. Description of the project

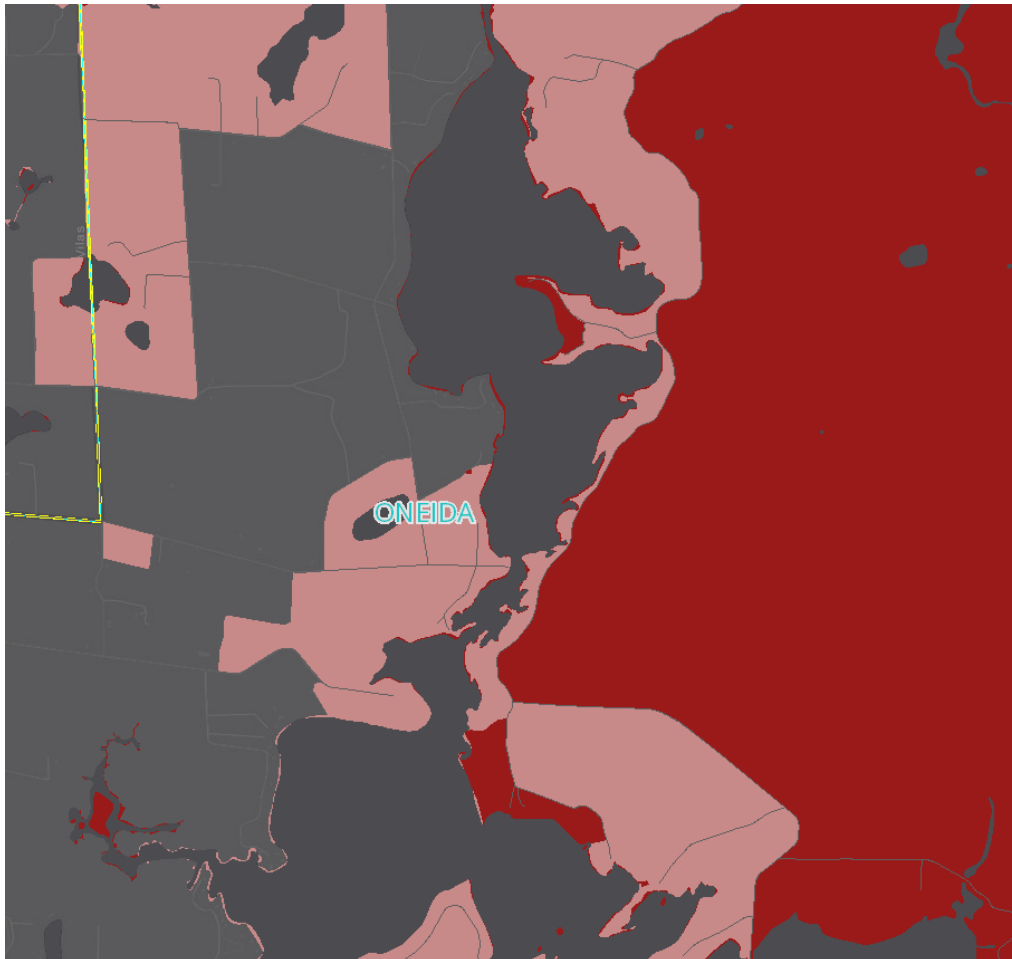
Project Description: The project intends to construct 3.32 miles of Fiber to the Home (FTTH) infrastructure to serve 84 unserved residential addresses.

3.2.2.a. A map and description of the area of the state that will be affected by the proposed project

See page 5 & 6

3.2.2.b. If the project area lies within a census block designated as served, provide additional documentation to demonstrate the actual broadband service that is available in the proposed area of service.

According to current PSC Mapping data the project area is considered both unserved (red) and underserved (pink). However, the PSC mapping data shows that Astrea already services this area, we believe our initial design of this project was inadvertently uploaded to the PSC. All project areas would be red without that error.



3.2.2.c. An explanation of how the proposed project will increase broadband access in the project area.:

The proposed project allows CCI to provide wired broadband service to approximately 84 unserved addresses within the project footprint.

There are approximately no traditional business locations, however we have also identified self-employed folks and a few in-home businesses within the proposed project area, showing a continued trend that work-from-home is on the rise.

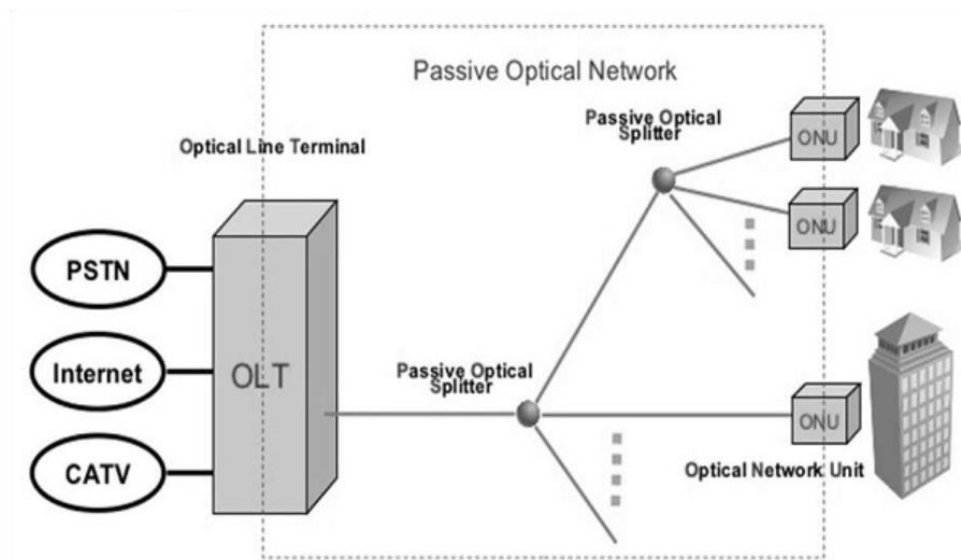
Broadband services will be offered up to 1000 x 1000 Mbps. (Gigabit)

3.2.2.d. A statement whether the proposed project is targeting the “last mile,” “middle mile,” or backbone portion of the broadband infrastructure.

Last Mile: The extension is 100% last mile to bring broadband access to unserved and underserved residents.

3.2.2.e. A description of the broadband service to be provided, including estimated download and upload speeds, whether the speed is based on dedicated or shared bandwidth, and the technology will be used. This statement may be illustrated by a map or schematic diagram, as appropriate

The technology will be FTTH (Fiber to the home) and will use GPON (Gigabit Passive Optical Network) which will be shared bandwidth. Where we have deployed this architecture in other areas of the state, we typically offer 1000 x 1000 mbps, although capable of more upload speeds.



3.2.2.g. A schedule by which the applicant intends to complete the components of the proposed project.

Key Dates

- Notification of Award followed by execution of Award Agreement: Assumes *June of 2022*
- Project completion is anticipated approximately 24 months (see Timeline below):

Project Components (X = Complete)	FYE June 30th, 2022		FYE June 30th 2023				FYE June 30th, 2024	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Execution of the PSC Grant Agreement		X						
Engineering and Design		X	X					
Permitting		X	X					
Fiber Construction			X	X	X			
Splicing and Testing				X	X	X		
Available to Customers					X	X	X	X

3.2.3 Itemized Budget (all amounts should be rounded to nearest dollar).

3.2.3.a Estimates or Quotes

See Appendix

3.2.3.b The application must show that the grant, if awarded, will not subsidize the expenses of a telecommunications provider or the monthly bills of telecommunications customers. For purposes of this grant program, subsidy means a contribution to the operating costs, including profit, of the telecommunications provider.

The grant, if awarded, will not subsidize the expenses of CCI Systems or any other telecommunications provider, nor will it subsidize the monthly bills of telecommunications customers. For purposes of this grant program, a “subsidy” is defined as “contribution to the operating costs, including profit, of the telecommunications provider.”

3.2.3.c The application must show that the grant funds requested will be used for the sole purpose of constructing broadband infrastructure in the underserved areas covered by the application.

Requested grant funds will be used for the sole purpose of constructing broadband infrastructure in the underserved areas described in our application and include:

- Project planning
- Obtaining construction permits
- Construction and Materials associated of the last mile infrastructure
- Modifications to core for new service group distribution.
- Testing of the broadband system

3.2.4. Priority Factors Supporting the Application

3.2.4.a. Matching Funds. A description of the matching funds the applicant will invest in the proposed project, if any.

See *Funding Statement* for matching funds

See *Appendix* for support letters

3.2.4.b. Public Private Partnerships.

The Town of Three Lakes a partner of the application, without traditional financial support. The Town of Three Lakes is a registered *Telecommuter Forward Community*.

<See appendix>

3.2.4.c. Existing Broadband Service

- Frontier is the only wireline provider in the project area.
Frontier provides no coverage or network map on their website. It does, however, allow prospective customers to look up coverage for their home address.

The PSC Broadband map shows depicts no serviceable speeds from Frontier speeds

- No known Fixed Wireless Availability in the area
- AT&T, Cellcom & Verizon are the mobile wireless providers covering the project area. Advertised speeds vary, and some include data-caps.
 - All available mapping tools show data coverage.

3.2.4.d. Project Impact

- **Residential Customer Impact:** 84 residential addresses in the project vicinity. Residential Take-Rate: Based on statistical evidence in surveying residents, we believe that approximately 60 residential addresses will subscribe to Astrea's data service.
- **Business Customers:** No traditional business address exist within the project area. Having affordable high-speed internet can allow for work-from-home or in home businesses to further bolster economic growth.
- Based on our community outreach, we expect to have 60 connected users within 2 years of availability.
- Consumers will have options of speeds from 50x5 mbps to 1000x1000 mbps.
- Astrea supports a variety of discounting programs to assist in affordability.
- Astrea has a full marketing/community outreach team that will continually engage with local leadership to support adoption. This will include education and digital literacy events and programs supporting reduced or free installation. Astrea is a no-contract company.

3.2.4.e. Scalability

- **Number of users.** CCI will provide 100% access to the existing addresses within the map (see 3.2.2.a). There are many parcels of land not yet developed near and within the project vicinity that will have service available to them. Without significant wire-line extensions, the proposed architecture could add 50 or more address.
- **The number of network nodes.** With proper configuration, and a small investment, an additional network node could be added, with little expense, to effectively double users and per home capacity.
- **The number of services provided.** Astrea, in addition to Data service will offer the following:
 - Voice over Internet Protocol (VoIP).
 - Managed Wi-Fi and Security Products
- **The geographic area served by the project.** With existing technology and wire-line extensions, the proposed architecture could add 50 or more address near the current project vicinity.

3.2.4.f. Economic Development

The effects of Seasonality

The Town of Three Lakes is primarily a lake community and have a seasonal component. Even outside of the lake communities directly, seasonality still exists. The PSC may consider these tourists or transients. However, due to Covid-19 research shows a powerful and suspected long term trend that Work from Home, will drive people to occupy these seasonal areas longer or permanently.

Research by UWEX, suggests that nearly 53% of the seasonal residents would stay longer if they had broadband access.

Reference:

https://www.slideshare.net/WI_Broadband/economic-impact-of-broadband-second-homes-high-speed-bits

We suggest that approximately 35 homes are seasonal in the Project vicinity, and that would spend an average of 37 days longer, which would drive an additional \$60,000 into the local economy on an annual basis. This study is likely undermined with current trends that have risen since the beginning of the pandemic.

Expanded broadband access will entice seasonal users to not only stay longer, but potentially stay full time. This will have a trickle effect, by creating demand for retail growth and attraction of new business. Vacant properties and lake lots will be improved to increase the tax base in the area.

3.2.4.g. Affect upon broadband service to adjacent areas. A description of whether the proposed project will or will not impair the ability of a broadband service provider or competing broadband service provider to extend broadband service to areas adjacent to the proposed project area.

This project will assist our efforts in continued investment and innovation within the project area and the surrounding areas. As far as impairing the ability of another service provider, we believe that competition is a critical element in our economy. It is difficult to suggest that our project will (or will not) impair any service provider from continuing to bring solutions to areas in need.

3.2.5 Other Information supporting the application

3.2.5.a A description of the applicants history or experience with constructing Broadband communication facilities in the state and elsewhere.

Astrea's mission is to provide innovative communication technology to rural communities.

CCI Systems (d.b.a. Astrea Connect) provides communication services in over 60 different communities in Northern Wisconsin and Michigan's Upper Peninsula. We operate nearly 1800 miles of fiber backbone in these areas and have an additional 750 miles of fiber or



coaxial distribution network. Our service offerings are typical of today's Cable TV companies with Digital Video, VoIP, and High-Speed Cable Modems. Today, Astrea Connect serves approximately 13,700 homes and business with one or more products.

We celebrate the fact that we are a small, local telecommunication provider. Our continued expansion and investment in our broadband infrastructure are 100% focused in rural areas.

CCI Systems has been designing, building, and upgrading Communication networks across the nation for over 50 years. At any time, CCI has ongoing projects in 25-30 states.

CCI partners with more than 50 technology leaders throughout the industry. CCI holds numerous certifications, including Cisco SP Signature Partner and Cisco Authorized Service Provider Video Partner (both invitation-only). CCI professionals continually train and pursue additional certifications to maintain proficiency with that latest state-of-the-art technology. ‘

CCI's Field and Design Service:

- Mapping and Permitting
- Drafting and Design
- FTTx – Fiber to the home

CCI's Network Solutions Group:

- Optical and IP Networks
- Security Solutions
- SD-WAN
- Data Center
- Technical Field Services
- Fiber Splicing and Testing

Guide Star (Another CCI Brand)

- Managed Security Services
- Managed IT support services
- NOC (Network Operations Center)
- Call center & customer care
- Language Services
- Remote Technical Support and Consulting
- Hospitality call center support

CCI's Construction Services:

- Aerial Cable Placement
- Underground Cable Placement



3.2.5.b A description of how the proposed project will or will not duplicate existing broadband infrastructure.

Existing infrastructure is primarily a DSL technology provided by Frontier, where the available speed will vary greatly by location. There is no other wireline or fixed wireless providers in the project vicinity.

3.2.5.c. A description of an applicant's financial ability to undertake the proposed broadband construction project.

CCI Systems has been in business for 65 years. CCI's business unit "Astrea" started in 2007. CCI is 100% employee-owned and debt free. CCI has over 1000 employees providing goods and services to hundreds of ISP's throughout the country. With a strong balance sheet, and risk-adverse ownership structure, CCI has access to sizeable investment capital to fulfill growth throughout its portfolio. CCI has been able to routinely invest in Astrea each year to achieve exceptional growth.

3.2.5.f. A description of how the proposed project will affect the ability of individuals to access health care services from home, including any impact upon the costs of those services.

With high speed Broadband, residents of the targeted area, will be able to **reliably** use telemedicine type services. The adoption of such services is on the rise, especially in rural America. This will save time, money, and overuse of nearby small clinics. The nearest Hospital is approximately a 30-minute drive.

3.2.5.g A description of how the proposed project will affect the ability of students to access educational opportunities from home.

Students who live in the project area will increase their access to online learning platforms. With the adoption of 1 to 1 technology initiatives, children struggle in underserved areas to complete schoolwork outside of the classroom. As rural schools are forced to share online learning by offering classes in collaboration with nearby school districts, especially AR type curricula that have high value and low physical attendance.

3.2.5.h A description of actions taken by a city, village, town, or county in support of the grant application that have not been discussed in the context of a public private partnership above.

See Appendix – Support Letter - Town of Three Lakes

The Town of Three Lakes is a registered *Telecommuter Forward Community*

3.2.5.i. Letters and Messages

See Appendix

3.2.5.j. Other equitable factors

Additional public interest factors cited in Wis. Stat. § 196.03(6) that will be advanced by this applicant's project are described in support letters from residents of the target affected area.

These public interest factors include:

- Improved pricing structures with better consumer service and competition for affordability [§196.03(6)(a)]
 - The promotion of greater consumer choices for service with additional price points and speeds with added CCI service [§196.03(6)(b)]
 - Enhanced quality of life for the public, High speed access to the growing telemedicine culture. Children require proper connectivity to not only assist with educational needs, however contemporary on-line portions of schoolwork through 1 to 1 initiative, is a national trend. Children residing in the project area will have access to services that allow them to thrive.
 - [§196.03(6)(c)] Promotion of efficiency and productivity [§196.03(6)(f)]
 - Promotes universal service by providing speeds that are up to 40 times faster than defined by the FCC's current definition of broadband of 25 x 3 Mbps or 100 times faster than CAF II minimum of 10 x 1. [§196.03(6)(d)]
 - Promotes robust economic development, attracts new businesses, increases the tax base, improves property values, and allows residents to conduct work from their seasonal summer homes year-round. [§196.03(6)(e)]
 - Promotes telecommunications services in geographical areas that are rural and experience disparities due to having no broadband connectivity, and that include diverse income populations [§196.03(6)(g)]
- ***Technical support and training materials that the applicant intends to provide.***
- Business: 24/7 technical support with a trained engineer. Guaranteed onsite within 24 hours
 - Residential: 24/7 support number
 - Astrea Diagnose & Astrea Juice (User technology tools)
 - Blog posts with tips and tricks on using connected services.
 - Work with Microsoft to promote digital literacy <https://astreaconnect.com/digital-literacy/>
 - Worked with 4H/Tech Change Makers branches in Wisconsin and Upper Michigan to partner on community efforts to enhance broadband connectivity education.
 - Astrea conducted training sessions with 4H student leaders to educate them on the different internet connectivity options available and how much speed a household need

- Created “The Definitive Guide: Your Rural Broadband Connection” that was distributed to 4H groups as an education resource to be distributed within their communities.
- ***Information that the applicant intends to use to promote better broadband adoption and use.***
 - Being active within the community and creating brand awareness in communities we serve.
 - Speed guides to give potential customers a better understanding of what package would be best for them and their needs
 - Targeted advertisements to specific areas (digital, outdoor)
 - Hosted local digital literacy events to promote new users to adopt a safe and secure digital lifestyle.
- ***A description of a program or outreach to provide assistance to individuals of low income.***
 - Participation in the FCC’s EBB program
 - Participation in the new FCC’s new ACP program.
 - DPI Partnership - <https://astreaconnect.com/astrea-dpi/>
 - ACA K-12 Bridge to Broadband
 - Free Public Wi-Fi locations in communities we serve.
<https://astreaconnect.com/astrea-offers-free-wi-fi-locations-as-part-of-covid-19-response/>
 - School distance learning program– extended offering of free service months to ensure connectivity of students and teachers during virtual schooling. <https://go.astreaconnect.com/astreadistance>

Appendix

- **Partner Support**
 - **Town of Three Lakes**
- **Letters of Support**
- **Detailed Budget**



Town of Three Lakes, Oneida County
P.O. Box 565
6965 W. School St., Three Lakes, WI 54562
Phone#715-546-3316 Fax#715-546-3384
www.townofthreelakes.com

February 16, 2022

R. Cory Heigl
Astrea-Vice President and General Manager
105 Kent Street
Iron Mountain, MI 49801

Dear Mr. Heigl:

On behalf of the Three Lakes Town Board of Supervisors, I am writing this letter of support regarding all broadband expansion through private enterprise, grants and other non-taxpayer funded opportunities as they may exist to better serve the Town of Three Lakes residents and businesses.

We submit this letter for support to help facilitate the development of an affordable and reliable wireless broadband system and to encourage the Public Service Commission to continue to award funding this area. This letter is sent in support of your continued efforts in applying for the Broadband Expansion Grant program to install, expand or enhance high speed internet throughout Three Lakes.

We appreciate the commitment of the Public Service Commission to partner with local government and thank you for considering grant applications on behalf of better serving Three Lakes

Sincerely yours,

Jeffrey M. Bruss
Three Lakes Town Chairman

/sh



16 March, 2022

Astrea
105 Kent St.
Iron Mountain, MI 49801

Re: Letter of Support for Broadband Expansion PSC docket N° 5-BF-2022

To whom it may concern:

The town of Three Lakes is one of the best examples of “Up North” Wisconsin. Located in Oneida county, we’re a small incorporated community in a hundred square mile footprint. Less than two thousand people call it home, several thousand call it vacationland and 2nd home.

We’re part of Forward Three Lakes, an initiative of the Three Lakes Community Foundation. We are a coalition of doers, educators, and change-makers organized to shape the future of affordable and available broadband. Our call to action came in the form of a Wisconsin Broadband Office spreadsheet which listed pages of PSC grants awarded to towns, like ours...but not ours. One thing was clear: if we’re not keeping up, we’re falling behind.

We needed to accelerate the universal and affordable access of high speed broadband to our community. Through research and conversations with other community leaders, we learned our solution wouldn’t look the same as others. It would require innovative approaches and expanding relationships. In order reach all underserved, many solutions would be required to address our topography, geography and density challenges.

Among our solutions is thoughtful collaboration with a regional broadband provider, Astrea. Astrea acquired our local cable company, where available speeds were often less than 25 Mbps. Astrea immediately made substantial investment in its cable plant, resulting in speeds and reliability while reducing the cost.

If awarded, Astrea will provide broadband to unserved and underserved areas of Three Lakes, resulting in economic growth via remote working, educational access, health care and all the benefits connected technology offers. We want to close the digital divide and appreciate the Wisconsin PSC and Astrea bringing the future of broadband to our community.

Richard Verch
Director of Broadband Development
an initiative of Forward Three Lakes





Edward U. Demmer
Memorial Library
6961 W. School St.
PO Box 760
Three Lakes, WI 54562

Phone (715) 546-3391
FAX (715) 546-3914

demmer@demmerlibrary.org

To: Astrea and Wisconsin PSC State Broadband Office

Re: Letter of Support for Three Lakes Broadband Expansion

To whom it may concern:

As the director of the local public library serving the Three Lakes community I have had a front seat to the impact of the need and demand for high speed internet. Between Memorial Day and Labor Day, the 3,239 "vacant" properties in this town of 2,413 full-time residents fill with seasonal residents, their families, and renters seeking recreation and refreshment on our area lakes and in our forests. As of the year 2000, work no longer stops at the end of the day or the start of a vacation. Many of these residents and visitors who don't have access to high speed internet find their way to the library where our internet use *triples* from 1,500 to 4,500 wireless connections per day and our rooms, seats, and parking spaces are filled.

During the pandemic seasonal homes quickly became primary homes (to the tune of 15 – 20 new mailboxes per week on mail routes) as remote workers sought refuge and the opportunity to try relocating long-term. With adequate internet service some could commit to making a permanent change. They became members of our year-round community and economy (and use their library cards!). Others brought extension cords and set up office space at picnic tables or camped out on the library's front porch or in their cars to find reliable internet.

The extension of reliable broadband internet to more homes in the community means opportunity for Three Lakes to be the viable option. It means visitors stay longer, part-time residents become full-time, and there is a base for entrepreneurs and small businesses to grow.

We remodeled our library in 2018 specifically with this need in mind, adding study rooms and seating space. We experienced the immense demand for fast, reliable internet. The pandemic showed the desire to be greater than we guessed. We've seen the building blocks missing from our future, and broadband infrastructure is the cornerstone. Thank you for considering Three Lakes for your investment.

Regards,

Erica Brewster
Demmer Library Director



March 14, 2022

To whom it may concern:

Re: Letter of Support for Broadband Expansion PSC docket 5-BF-2022

Widespread broadband availability throughout our 99 square mile town of Three Lakes is of utmost importance. This became even clearer when we helped bring the University of Wisconsin's Design Wisconsin Team to our town to help point us forward. On the one hand, the community voiced the need loud and clear in this process known as Forward Three Lakes. Likewise, the 21-member Design Wisconsin Team that focused in on our town targeted true broadband as a must for our community.

Three Lakes still has unserved areas and continues to have considerable underserved areas. Each step forward in bringing greater broadband coverage is critical for our year-round residents, for our seasonal residents, businesses, tourists and those coming through for shorter periods of time.

We are working together as a community on several fronts to move forward. Broadband is very high on our list. The proposed new funding is one important step which we support.

Thank you for this consideration,

Jim

James R. Morley
Board Chair
Three Lakes Community Foundation



March 15, 2022

Re: Letter of Support for Broadband Expansion PSC docket 5-BF-2022

To whom it may concern:

The town of Three Lakes is a cozy community on the south end of 28 interconnected lakes – the largest chain of inland freshwater lakes in the world. An abundance of natural resources surrounds our 99 square mile town: 650,000 acres of national forest and scores of lakes. Only 5% of the total land is developed with homes and businesses. Full time residents number about 2,000 and swell to several thousand during the summer. A 2022 survey from WI Dept of Public Instruction report 8.3% of students do not have internet access.

However, as we understand it, the lakes and forest, coupled with a lower population density, have been historically cost prohibitive for ISPs, which has resulted in a higher percentage of under-served locations than our neighboring communities.

Broadband availability is vital to sustain the growth of tourism, attract new businesses, teleworkers, and potential new homeowners. Current under-served households and businesses are holding our community back, as high-speed broadband is no longer a luxury, but a necessity for work, safety, learning and connecting our businesses and households with the world.

This PSC grant will help Astrea close the broadband coverage gaps in our community. We support Astrea in this top-priority endeavor to reach our goal of complete broadband connectivity.

Kind Regards,

A handwritten signature in dark ink, appearing to read "Collette X Sorgel". The signature is fluid and cursive, with a large, stylized "X" in the middle.

Collette Sorgel

Visitors Center Coordinator

Three Lakes Area Chamber of Commerce

1704 Superior Street | PO Box 268 | Three Lakes, WI 54562

(715) 546-3344

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ColletteS@ThreeLakes.Com

www.ThreeLakes.com

**THREE LAKES POLICE
DEPARTMENT**

6965 West School Street

P.O. Box 5

Three Lakes, Wisconsin 54562

Telephone (715) 546-2211

Fax (715) 546-2949

Scott E. Lea
Chief of Police

Margaret Favorite
Administrative Assistant

February 10, 2022

To whom it may concern:

I am writing this letter in support of any grant available through Astrea that may assist citizens of Three Lakes with to have increased high-speed internet in our area.

Access to highspeed internet not only can assist in the daily life for our residents but has a great value when it comes to home security. I have spoke with many groups in Three Lakes to include our Fourmile Lake Neighborhood Watch Group about the use of cameras and security systems to help ensure the monitoring and safety at their residences or vacation homes.

In some of our areas high-speed internet is not an option which does limit the security systems capabilities.

Thank you for taking the time to accept this letter in support of this grant.

Have a wonderful and safe day.

Sincerely,

Scott E. Lea

Scott E. Lea
Chief of Police
Three Lakes Police Department



Cory Heigl

From: Scott Schuster <scott.schuster@creativeplanning.com>
Sent: Tuesday, February 15, 2022 12:22 PM
To: Grant Support
Cc: Heather Schuster
Subject: Broadband Initiative in Three Lakes, WI

To Whom it May Concern,

My name is Scott Schuster (wife is Heather Schuster) and our address is 8501 Highway X, Three Lakes, WI, 54562. My home is the northernmost home on Highway X before HoneyRock Camp. I am writing to request your consideration in approving the grant for installation of broadband services along Highway X. There are three specific reasons that I'd point to in our strong desire for added broadband coverage:

1 – I run a business that has been remote and will continue to be remote for the foreseeable future. As my home on Highway X does not have reliable broadband coverage, I have found myself with the need to commute back to Illinois for key meetings and initiatives that my work schedule demands. Additionally, I have been searching for other viable alternatives that are much less disruptive for my family. Access to reliable broadband would be a huge win from a business and a planning perspective.

2 – My son attends the University of Wisconsin – Madison as a sophomore. He's been coming to the Three Lakes since he was 2 years old. This summer he will have two remote classes to attend while also participating on the Aqua Devils and working at Watercraft Sales. If he does not have access to reliable broadband, he will either have to commute back to campus or not have the opportunity to come up. This will continue to be a focal point of our family and many many others from a remote learning perspective.

3 – My dad is 80 years old and uses a C-Pap machine. I don't claim to understand the innerworkings of that noisy and clunky machine, but apparently that machine had a needs access to broadband to either connect with his doctors office or regulate various bodily functions, etc. That being said, my Dad hasn't come up to Three Lakes in over 4 years since he went on this machine. I'd love to get my Dad up to my place before he is no longer with us.

I'm available for any commentary or updates you may need and greatly appreciate your consideration and hopefully successful grant receipt.

Sincerely,

Scott and Heather Schuster

Scott Schuster, CFP®, CPA
Partner, Managing Director

scott.schuster@creativeplanning.com

Direct: 630.203.3105 | Cell: 630.890.5180

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1520 Kensington Road, Suite 107 | Oak Brook, IL 60523





FTTH Calculator	Quantities
Total Route Miles	3.32
Aerial Route Miles	0.00
Underground Route Miles	3.00
Install New Strand	0.00
Make Ready Miles	0.00
UG Plow Percentage	35%
UG Trench Percentage	0%
UG Bore Percentage	65%
Estimated % of Rock Encountered UG Route	0%
Passings	84
Passings Per Mile	25
Total Cost Engineering	\$6,000.00
Cost Per Mile Engineering	\$1,807.23
Total Cost OSP Labor	\$148,798.40
Total Cost OSP Material	\$52,770.23
Total Cost OSP Labor and Material	\$201,568.63
Cost Per Mile Labor and Material	\$60,713.44
Cost Per Passing	\$2,471.06
Total Cost	\$207,568.63

ESTIMATED LABOR QUANTITIES & COSTS	QTY	UNIT	COST	SUBTOTAL
Install Strand - Includes Bonding, Grounding, Installing Down Guys, Incidental Tree Trimming	0	FT	\$0.72	\$0.00
Install Anchors	0	EA	\$100.00	\$0.00
Overlash/Lash 1 Fiber Cable	0	FT	\$0.83	\$0.00
Overlash/Lash MST Cable Additional While Installing Mainline	0	FT	\$0.45	\$0.00
Plow 1 (1.25") Conduit For Trunk/Distribution Fiber Cable 24" Depth/Install Peds/Grounding	5,544	FT	\$3.00	\$16,632.00
Trench 1 (1.25") Conduit For Trunk/Distribution Cable 36" Depth/Install Peds/Grounding	0	FT	\$12.26	\$0.00
Directional Bore 1 (1.25") Conduit For Trunk/Distribution Cable 36" Depth/Install Peds/Grounding	10,296	FT	\$10.00	\$102,960.00
Install 1 Additional Conduit (1.25") Same Time As Initial Conduit	1000	FT	\$1.00	\$1,000.00
Rock Adder For Trench - Rock Saw	0	FT	\$26.75	\$0.00
Rock Adder For Bore - Cobble Type Rock	0	FT	\$18.86	\$0.00
Solid Rock Adder - If Encountered Would Need to Consider Setting Poles	0	FT	\$65.00	\$0.00
Pull Trunk Fiber Into Conduit	11,088	FT	\$0.55	\$6,098.40
Pull MST Into Conduit	8,300	FT	\$0.55	\$4,565.00
Install Test Stations For Fiber	15	EA	\$75.00	\$1,125.00
Install Warning Posts For Fiber	16	EA	\$50.00	\$780.00
Intall Pedestal Average Price Various Sizes	10	EA	\$50.00	\$500.00
Install Pull/Storage Vault Average Price	20	EA	\$350.00	\$7,000.00
Install Splice Enclosure	10	EA	\$250.00	\$2,490.00
Install Cabinet Active and Passive Average Cost	2	EA	\$750.00	\$1,500.00
Fusion Splice At Splice Enclosures/Cabinets Includes OTDR Testing Average of Tier Pricing	100	EA	\$41.48	\$4,148.00
Aerial Make Ready Estimate	0	MI	\$2,000.00	\$0.00
Engineering Underground - Includes Walkout, Design, and Permitting	3	MI	\$2,000.00	\$6,000.00
Engineering Aerial - Includes Walkout, Design, Pole Profiling and Permitting	0	MI	\$2,000.00	\$0.00
TOTAL LABOR COST				\$154,798.40

ESTIMATED MATERIAL QUANTITIES & COSTS	QTY	UNIT	COST	SUBTOTAL
Cabinets/Splitters	2	EA	\$2,263.00	\$4,526.00
OLT and CO Equipment (Per Home Passed)	1	EA	\$26,000.00	\$26,000.00
MST 4 Port 250'	13	EA	\$232.00	\$3,016.00
MST 4 Port 500'	6	EA	\$338.00	\$2,028.00
MST 4 Port 750'	4	EA	\$444.00	\$1,776.00
MST 4 Port 1000'	2	EA	\$550.00	\$1,100.00
MST 4 Port 1500'	0	EA	\$302.00	\$0.00
MST 4 Port 2000'	0	EA	\$357.00	\$0.00
MST 8 Port 250'	2	EA	\$205.00	\$410.00
MST 8 Port 500'	2	EA	\$357.00	\$714.00
MST 8 Port 750'	1	EA	\$462.00	\$363.83
MST 8 Port 1000'	1	EA	\$568.00	\$447.30
MST 8 Port 1500'	0	EA	\$425.00	\$0.00
MST 8 Port 2000'	0	EA	\$475.00	\$0.00
Splice Enclosure (junction splice locations)	22	EA	\$378.27	\$8,321.94
24 Count Fiber	6000	FT	\$0.33	\$1,980.00
48 Count Fiber	4500	FT	\$0.42	\$1,890.00
96 Count Fiber	0	FT	\$0.72	\$0.00
144 Count Fiber	0	FT	\$1.08	\$0.00
288 Count Fiber	0	FT	\$1.83	\$0.00
432 Count Fiber	0	FT	\$2.41	\$0.00
Conduit 1 1/4" With Couplers and Pull Tape	12,000	EA	\$0.65	\$7,800.00
Strand and Hardware	0	FT	\$0.40	\$0.00
Lashing Materials	0	FT	\$0.13	\$0.00
Misc Hardware (fiber tags, straps&spacers, risers, etc.)	0	FT	\$0.03	\$0.00
Warning Posts	16	EA	\$22.00	\$343.20
Test Stations	15	EA	\$75.00	\$1,125.00
Vaults Average of Various Sizes	20	EA	\$350.00	\$7,000.00
Pedestals TV 104 or Similar	10	EA	\$316.00	\$3,160.00
Fusion Splice Sleeves	500	EA	\$0.53	\$265.00
TOTAL MATERIAL COST INCLUDES 9% TAX & FREIGHT				\$52,770.23